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ABSTRACT

The Cognitive Bias Questionnaire (CBQ) was assessed as an outcome measure in the treatment of depression in a study involving 20 depressed and 20 non-depressed female subjects. The role of depressive distortion in the maintenance or stabilization of depression was also examined. Subjects were randomly assigned to one of four groups: depressed-treatment, depressed-control, non-depressed-treatment, and non-depressed-control. The treatment for depression that was used involved a precision teaching model to alter proportional rates of positive self statements without targeted modification of the thinking process. Specifically, the procedure involved teaching subjects to generate a list of 30 positive adjectives to be rehearsed and recalled during a predetermined "test" time. The CBQ was administered to all subjects before and after treatment. The results indicate that: (1) depressed subjects showed higher frequencies of depressed distorted and depressed non-distorted responses and lower frequencies of non-depressed non-distorted responses; (2) non-depressed distorted responses were not relevant to the level of depression; and (3) the treatment did not significantly alter these responses. (TJH)

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The Cognitive Bias Questionnaire: An Outcome Measure In the Treatment of Depression

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The Cognitive Bias Questionnaire:

An Outcome Measure in the Treatment of Depression

Problem

It has been almost 20 years since Beck (1967, 1976) described depression as a thinking disorder consisting of a negative view of self, world or others which he labeled the "negative triad". Since then, studies have attempted to translate Beck's descriptions into operational terms testing his central idea of the relation between cognitions and emotions. Unfortunately little work has been done to test the biased, unrealistic quality of depressive cognition or how these cognitions change as a function of treatment.

Recently, Krantz and Hammen (1979) developed a standardized measure called the Cognitive Bias Questionnaire (CBQ) to measure cognitive distortion among depressives. CBQ responses are modeled after the categories described by Beck. They have found that CBQ has a moderate test-retest reliability and can reliably differentiate depressives from nondepressives. Additionally, depressed individuals have a significantly higher cognitive distortion on the CBQ. Although the CBQ is designed as a possible outcome measure, few studies have been reported using the measure in this way.

The purpose of this study was to 1) assess the CBQ as a possible outcome measure for the treatment of depression 2) examine the role of depressive distortion in the maintenance or stability of depression. The treatment for depression used involved a precision teaching model to alter proportional rates of positive self statements without targeted modification of thinking process. The procedure involved teaching subjects to generate a list of 30 positive adjectives which they rehearsed and then recalled during a predetermined "test" time.

Method

Twenty depressed and twenty nondepressed females were selected on the basis of their scores on the Beck Depressive Inventory (BDI). Mean BDI for depressive was 18.73 (SD = 5.1) and for nondepressives was 2.95 (SD = 2.5). BDI scores for depressives ranged from 13 to 32 while scores for nondepressives ranged from 0 to 7.

Subjects were randomly assigned to treatment and control groups so that 4 groups were formed: Depressed-Treatment, Depressed-Control, Nondepressed-Treatment, Nondepressed-Control. The treatment groups received instruction and practice in the generation of positive self statements for a two-week period while the control groups only monitored their moods. All subjects were required to answer the Cognitive Bias Questionnaire (CBQ) before and after treatment. Four component scores were derived from the CBQ: (1) Depressed-Distorted responses-DD (2) Depressed-Nondistorted responses-DND (3) Nondepressed-Distorted-NDD (4) Nondepressed-Nondistorted-NDND. Post assessment was taken following the two week treatment period.

Results

Each component of the CBQ was analyzed across Depression level, Treatment condition and Pre-post assessment using a 2 x 2 x 2 ANOVA with repeated measures on the assessment factor. The first analysis was on the DD component. Results indicated a significant main effect for Depression $F(1,36) = 13.11$ $p < .001$ due to a higher level of depressed distorted replies among depressives as compared with nondepressive individuals. A second main effect found significant differences from Pre to Post $F(1,36) = 21.01$ $p < .001$ due to a decrease in the DD replies among the groups. Although no other analyses were

found to be significant it is worth noting the significant trend of the triple interaction depression x treatment x pre-post $F(1,36) = 5.51$ $p < .07$. This trend was caused by a drop of DD from pre to post among depressives treated while no changes were observed for the depressed control. Additionally the level of DD was maintained even lower for the nondepressive groups.

The second CBQ component analyzed was the DND. A main effect for depression was also found $F(1,36) = 20.79$, $p < .0001$ which was due to depressive individuals responding with higher DND that nondepressed. No other significant differences were found with DND or with the third CBQ component, NDD responses.

Finally the fourth CBQ component, DNND, only found significant main effects for Depression $F(1,36) = 22.28$ $p < .0001$ and for Pre-Post $F(1,36) = 76.05$ (.001). These were due respectively to depressives having significantly fewer NDND than nondepressives and to the significant increase in NDND from Pre to Post among depressed individuals.

Discussion

Three components of the CBQ were found to be sensitive to level of depression. Depressive individuals showed higher frequency of depressed distorted and depressed nondistorted responses and lower frequency of nondepressed nondistorted responses. The Nondepressed Distorted component was found to be not relevant to level of depression. Treatment, however, was not found to significantly alter these components.

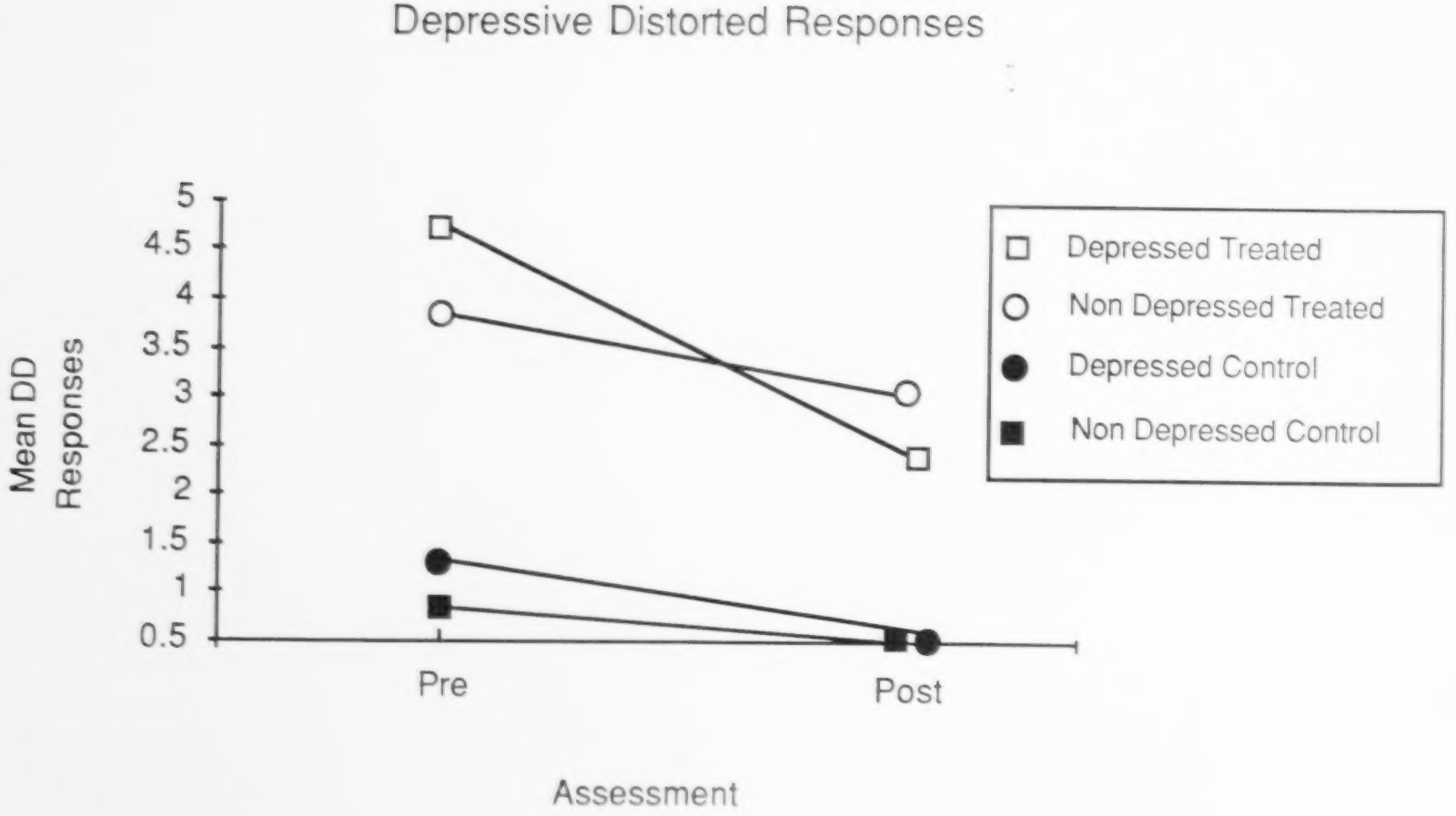
It is possible that the treatment used at increasing the rate of positive adjectives may have not been sufficient in changing cognitive distortions. Cash, Rimm & Mackinnon (1985), have suggested that to actually change distorted

cognitions a less mechanistic cognitive intervention could be more appropriate. It would be, however, premature to draw any conclusions at this point in relation to the treatment and the use of CBQ as an outcome measure because of the large variability obtained and the relatively small sample used. Further replication with a larger sample is needed to address these questions.

Table 1

Summary of Means for Cognitive Bias Questionnaire

			DD	DND	'DD	NDND
Depressed	Treatment	Pre	4.7	6.6	2.6	9.1
		Post	2.3	5.9	2.5	12.3
	Control	Pre	3.8	7.4	1.3	10.5
		Post	3.1	6.3	1.5	12
Nondepressed	Treatment	Pre	0.8	4.4	2.7	15.1
		Post	0.5	2.7	3	16.8
	Control	Pre	1.2	3.6	2.5	15.7
		Post	0.5	2.8	2.6	17.1


Depressive Distorted Responses
Mean DD Responses
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
Pre
Post
Assessment
Depressed Treated
Non Depressed Treated
Depressed Control
Non Depressed Control

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